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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,793	04/20/2004	Edwin C. Iliff	HEWAYS.015A6D1	5083
20995 7590 07/13/2010 KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			EXAMINER ZHOU, SHUBO	
			ART UNIT 1631	PAPER NUMBER
			NOTIFICATION DATE 07/13/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/828,793	<b>Applicant(s)</b> ILIFF, EDWIN C.	
	<b>Examiner</b> SHUBO (Joe) ZHOU	<b>Art Unit</b> 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/2/09.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6-8, 10-18, 20, 21 and 35-55 is/are pending in the application.
- 4a) Of the above claim(s) 15, 36, 39, 41 and 48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-8, 10-14, 16-18, 20-21, 35, 37-38, 40, 42-47, and 49-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/23/09, 3/12/10, 6/18/10</u> | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Upon further consideration, and in view of the interview conducted on 4/23/10 and in view of the newly added claims filed 10/2/09, prosecution on the merits in this application has been re-opened in light of the new ground of rejections below.

#### ***Status of the Claims***

The following is based on the amendment filed 10/2/09.

Claims 1-5, 9, 19, and 22-34 are canceled by the applicant.

Claims 6-8, 10-18, 20-21, and 35-55 are presently pending.

Claims 15, 36, 39, 41, and 48 have been previously withdrawn, and remain withdrawn, from further consideration as being drawn to nonelected species.

Claims 6-8, 10-14, 16-18, 20-21, 35, 37-38, 40, 42-47, and 49-55 are under consideration.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The rejection of the claims under 35 USC 103(a) over Iliff and Peifer is withdrawn in view of the interview summary conducted on 4/23/10.

Claims 6-8, 10-14, 16-18, 20-21, 35, 37-38, 40, 42-47, and 49-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iliff, E. C. (IDS document: US 5,935,060, Aug. 10, 1999) in view of Branson et al. (US 6598035).

The claims are amended to be drawn to a system comprising a processor and digital storage device containing various objects selected from disease object, symptom object, valuator object, question object, node object, and candidate object, wherein each object has corresponding data and processes, and wherein the data is encapsulated so that other objects only see the processes of a particular object that can be invoked to access the data.

Iliff discloses a medical diagnosis computer system comprising a computer system and database containing various data and scripts and software for using the system and the data for diagnosis. See at least the Abstract. The combination of data and scripts for manipulating the data is interpreted as reading on the "object" recited in the instant claims.

With regard to claims 6-7, the system of Iliff comprises at least a plurality of disease objects and a plurality of symptom objects. See at least Figs. 1, 3A-3B and Fig. 10, and columns 1-3. Further, in the system of Iliff, the script engine will execute an individual script which is linked to specific data. Thus, each object is only to see the script of another object, not the data. The system of Iliff's is stored in a server, harddrive or CD-ROM, which are hardware storage device and processor. See column 4.

However, Iliff does not disclose that the data in the objects are encapsulated so that they cannot be seen by other objects.

Branson et al. discloses a system and method where each object has data and corresponding processes, and where the data are encapsulated so that other objects only see the processes that can be invoked to access the data in order to maintain the integrity of the data (see column 6, lines 39-50, column 12, lines 26-34, and column 15, lines 23-31).

It would have been well known in the art of data analysis using object that data integrity and security would be important, and it would have been obvious for one having ordinary skill in the art at the time of the instant invention to be motivated by Branson et al. to modify the system/method of Iliff to have the data encapsulated in order to maintain the integrity of data in an object.

With regard to claim 8, the system of Iliff comprises a "diagnostic script engine," which is interpreted to be the engine object recited in the claim. See at least Fig. 1B, and columns 1-3.

With regard to claim 10, the objects in the system of Iliff are arranged in a hierarchical relationship so that the result of one is the input of another. See at least Fig. 2, and columns 1-3.

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With regard to claim 11, the system of Iliff comprises, in addition to the disease and symptom objects as in claims 6-7 above, also comprises question object, node object, valuator object and candidate objects. See at least Figures 7-15, and columns 1-3.

With regard to claims 12-14, and 18, the system of Iliff's comprises symptom, valuator and node objects, where symptom object invokes valuator object, which in turn invokes the question object, which then invokes the node object. See at least Fig. 4b and columns 1-3.

With regard to claims 16 and 17, Iliff discloses that a particular disease is associated with geographic information and diseases in a population and the frequencies therein. The system also comprises data and scripts for a plurality different diseases sharing common symptoms, such as "fever" shared by appendicitis, intestinal flu, food poisoning, and malaria. See at least column 8.

With regard to claim 20, Fig. 3B of Iliff shows that one disease object, e.g. disease object A, asks questions, and depending on the answers, the diagnostic process could stay on object A or goes to disease object B, which in turn asks questions, and again, depending on answers, it could to the next disease object, until finally, it may go to the last disease object X. Thus, disease object X is an object that monitors the questions and answers of the other disease objects.

With regard to claim 21, the system of Iliff comprises a script engine that coordinates all the entire process of diagnosis because it controls all the scripts. See at least columns 18-19.

With regard to the newly added claims 35, 37-38, Iliff discloses that a disease object directly invokes another disease object. See at least Fig. 14 and at least column 6. Iliff also discloses that the system users "list-based processing," i.e. it begins with a series of diseases, symptoms and questions. These lists are then processed into a playable script using a list-based

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script development tool. Each objects comprises scripts for questions for patients/users to answer, and once patients/users answered, the script development tool updates the disease scores and continues with the next symptom. Thus, those symptom and question data are constant data and the answers with update are variable data. See at least column 6.

With regard to new claims 40-42, dependent from claim 7, Iliff discloses that each disease object is associated with a series of symptoms, which are interpreted as phases of the disease because different symptoms are the manifestations of different phases of a disease. See column 6. Furthermore, Iliff discloses a time-based diagnostic scripts where the system provides multiple scripts, e.g. "one for each hour into the disease process," which are different phases of the disease. See column 8. Iliff also discloses that symptom object is also associated with "implied symptoms," i.e. a symptom established based on the presence of absence of another symptom. See column 9. This implied symptom is interpreted as a sub-symptom of the instant claim 42.

With regard to the newly added claims 43-55, it appears that the difference from the systems of claims 6-8, 10-14, 16-18, 20-21, 35, 37-38, 40 is that the data in an object are encapsulated so to be hidden. As set forth above, Branson et al. teach encapsulating the data in an object so that other object cannot see the data but only the processes. If data cannot be seen, they are hidden.

### ***Nonstatutory Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

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F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 6-8, 10-14, 16-18, 20-21, 35, 37-38, 40, 42-47, and 49-55 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 28 and 39 of US copending Application No. 09/785,044.

Claims 28 and 39 of US copending Application No. 09/785,044 are drawn to a method and a system comprising different objects including data and processes as those recited in the instant claims, and in the objects, the data are encapsulated so that other objects only see the processes of the objects not the data, which anticipates the instant claims.

Claims 6-8, 10-14, 16-18, and 20-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of US 6,527,713 B2, Mar. 4, 2003 in view of Branson et al. (US 6598035). Claims 1-14 of US 6,527,713 are drawn to a method and a system comprising different objects as those recited in the instant claims. However, claims 1-14 of US 6,527,713 do not recite that the data are encapsulated so that other objects do not see the data.

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As set forth above, Branson et al. discloses a system and method where each object has data and corresponding processes, and where the data are encapsulated so that other objects only see the processes that can be invoked to access the data in order to maintain the integrity of the data (see column 6, lines 39-50, column 12, lines 26-34, and column 15, lines 23-31).

It would have been well known in the art of data analysis using object that data integrity and security would be important, and it would have been obvious for one having ordinary skill in the art at the time of the instant invention to be motivated by Branson et al. to modify the system/method of claims 1-14 of US 6,527,713 to have the data encapsulated in order to maintain the integrity of data in an object.

### *Conclusion*

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shubo (Joe) Zhou, whose telephone number is 571-272-0724. The examiner can normally be reached Monday-Friday from 8 A.M. to 4 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie Moran, can be reached on 571-272-0720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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general patent information available to the public. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

/Shubo (Joe) Zhou/

SHUBO (JOE) ZHOU, PH.D.

PRIMARY EXAMINER